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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/838,118	04/20/2001	Hiroshi Takanashi	2001-0476	9938

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EXAMINER	
LEE, SIN J	

ART UNIT	PAPER NUMBER
1752	3

DATE MAILED: 11/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/838,118	TAKANASHI ET AL.	
	Examiner	Art Unit	
	Sin J Lee	1752	

-- The MAILING DATE of this c mmunication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 April 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. *09/262,077* .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pine (4,361,640).

Pine teaches a photopolymerizable element (useful for making printing plates) comprising a *support* bearing a layer of a photopolymerizable composition. See abstract and col.1, lines 20-24. Pine's photopolymerizable composition contains a binder system (*present component (A)*), an ethylenically unsaturated monomeric compound having at least two terminal

ethylenic groups capable of forming a high polymer by free-radical initiated chain-propagated addition polymerization (*present component (B)*), a free radical generating addition polymerization initiator (*present component (C)*), a thermal polymerization inhibitor (*present component (D)*), and a plasticizer. See col.1, lines 60-68, col.2, lines 1-19.

As one of only six examples for the plasticizer, Pine teaches mixed o,p-toluene sulfonamides (which chemical formula is CH_3-C_6H_4-SO_2NH_2). This compound teaches present component (E) having the formula (I) because in present formula (I), R^1 can be CH_3-C_6H_4 (*a substituted aromatic hydrocarbon group*) and X can be -SO_2NHR^2 wherein R^2 is a hydrogen atom. Since there are only six examples to choose from, it would have been obvious to one of ordinary skill in the art to choose the mixed o,p-toluene sulfonamides as the plasticizer for Pine's photopolymerizable composition with a reasonable expectation of achieving a photopolymerizable composition which is developable under aqueous conditions and possesses improved photographic speed. Since Pine teaches that 0-18% by weight of the plasticizer can be used for his composition, and since this range overlaps with present range of 0.001-0.3% by weight, the prior art's teaching would have made the present range *prima facie* obvious. In the case "where the [claimed] ranges overlap or lie inside ranges disclosed by the prior art," a *prima facie* case of obviousness would exist which may be overcome by a showing of unexpected results, In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). Therefore, Pine would render obvious the present component (E).

As to the present limitation of claim 1 for the thickness of the photosensitive layer (0.45-0.8 mm), Pine teaches (col.2, lines 20-23) thickness for the photopolymerizable layer to be in the range of 0.0127 mm to 6.35 mm (as converted by the Examiner). Since this range overlaps with present range, the prior art's teaching would have made present range *prima facie* obvious. In re Wertheim, supra.

Also, as to the present limitation, "a *negative working* photosensitive resin composition", since Pine's printing plate is made by removing the unexposed portions of the photopolymerizable layer (see col.5, lines 13-15), Pine's photopolymerizable composition is a negative working photosensitive resin composition as presently claimed. Therefore, Pine would render obvious the present invention of claim 1.

With respect to present claim 2, according to CRC Handbook of Chemistry and Physics, (56th Ed.), o-toluenesulfonamide has a melting point 156.3°C, and p-toleuenesulfonamide has a melting point of 138.5 °C. Boiling point data are not avaiable for these two compounds nor for the mixed o,p-toluene sulfonamides. However, since the melting point temperatures for each of these two compounds are already much higher than 95°C, it is the Examiner's position that the boiling point temperature for the mixed o,p-toluene sulfonamides would naturally be higher than 95°C and thus would teach present boiling point of *at least* 95°C. Therefore, Pine teaches present invention of claim 2.

With respect to present claim 3, since Pine uses an aqueous *alkaline* solution for developing his photopolymerizable element (see col.5, lines 13-15), it is the Examiner's position

that it is implied that Pine's binder is alkali-soluble. Therefore, Pine teaches present invention of claim 3.

With respect to present claim 4, Pine teaches (col.4, lines 67-68, col.5, lines 1-15) that printing reliefs can be made by imagewise-exposing (using for example, an image-bearing transparency) the photopolymerizable layer of his photopolymerizable element to actinic radiation and then developing by removing the unexposed portions of the photopolymerizable layer using an aqueous alkaline developer solution. Therefore, Pine teaches present invention of claim 4.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is (703) 305-0504. The examiner can normally be reached on Monday-Friday from 8:30 am EST to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Janet Baxter, can be reached on (703) 308-2303. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 for after final responses or (703) 872-9310 for before final responses.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0661.

S. J. L.

S. Lee
November 16, 2001

JANET BAXTER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700